

STRAINED SILICON FIN FIELD EFFECT TRANSISTOR

ABSTRACT OF THE DISCLOSURE

Strained Si surrounding the SiGe embedded body on a SOI (silicon on insulator) substrate forms a novel FinFET. The mobility in the channel is enhanced due to strain of the Si channel. The strained Si FinFET includes a SOI substrate, an SiGe embedded body, a strained Si channel surrounding layer, an oxide layer, a poly Si gate electrode (or metal gate electrode), a source and a drain.